

IN THE CLAIMS

1. (Previously Presented) An apparatus for processing financial transactions, comprising:

a memory operable to store information and a program, the memory further operable to store a first message indicating the making of a financial transaction, the first message including customer information and transaction information; and

a processor coupled to the memory, the processor, according to the program, operable to:

determine the validity of the customer information,

generate a second message indicating non-authorization of the financial transaction if the customer information is invalid,

determine whether the financial transaction involves a micro-payment if the customer information is valid,

cause at least part of the transaction information to be stored in an information storage device for future use and generate a third message indicating authorization of the financial transaction if the financial transaction involves a micro-payment, and

generate an authorization request if the financial transaction does not involve a micro-payment.

2. (Original) The apparatus of Claim 1, further comprising a communication interface adapted to be coupled to a communication link and coupled to the memory, the communication interface operable to receive information from and send information over the communication link.

3. (Cancelled)

4. (Original) The apparatus of Claim 1, wherein:  
the customer information comprises a digital certificate; and  
the transaction information comprises the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

5. (Original) The apparatus of Claim 4, wherein the customer account identifier represents a credit card account.

6. (Original) The apparatus of Claim 4, wherein the digital certificate complies with X.509.

7. (Cancelled)

8. (Original) The apparatus of Claim 1, wherein the processor is further operable to determine whether the customer information is in an appropriate format and is associated with an account that is in good standing to determine the validity of the customer information.

9. (Original) The apparatus of Claim 1, wherein the processor is further operable to generate a validation request based on the customer information, receive a validation response indicating the validity of the customer information, and analyze the validation response to determine the validity of the customer information.

10. (Previously Presented) The apparatus of Claim 1, wherein the processor effects the determination of whether the financial transaction involves a micro-payment as a function of at least one of: whether the amount of the financial transaction is below a predetermined threshold, a frequency of such financial transactions, and an identity of the customer.

11. (Original) The apparatus of Claim 1, wherein the processor is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier to instruct the memory to store at least part of the transaction information.

12. (Original) The apparatus of Claim 1, wherein the processor is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

13. (Original) The apparatus of Claim 1, wherein the processor is further operable to generate a fourth message to settle the financial transaction based on the stored part of the transaction information.

14. (Original) The apparatus of Claim 13, wherein the processor generates the fourth message at a designated time.

15. (Original) The apparatus of Claim 1, wherein:  
the first message includes merchant information; and  
the processor is further operable to determine whether the merchant information is valid, generate the second message if the merchant information is invalid, and determine whether the financial transaction involves a micro-payment only if the merchant information is valid.

16. (Original) The apparatus of Claim 15, wherein the merchant information comprises a digital certificate.

17. (Original) The apparatus of Claim 15, wherein the processor is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

18. (Original) The apparatus of Claim 17, wherein the processor is further operable to generate a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

19. (Previously Presented) A method for processing financial transactions, comprising:

receiving a first message indicating the making of a financial transaction, the first message including customer information and transaction information;

determining the validity of the customer information;

generating a second message indicating non-authorization of the financial transaction if the customer information is invalid;

determining in an automated manner whether the financial transaction involves a micro-payment if the customer information is valid;

if the financial transaction involves a micro-payment:

storing at least part of the transaction information, and

generating a third message indicating authorization of the financial transaction; and

if the financial transaction does not involve a micro-payment, generating an authorization request.

20. (Original) The method of Claim 19, wherein receiving a first message including transaction information comprises receiving the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

21. (Original) The method of Claim 20, wherein the customer account identifier represents a credit card account.

22. (Original) The method of Claim 19, wherein:  
the customer information comprises a digital certificate; and  
determining the validity of the customer information comprises determining the validity of the digital certificate.

23. (Original) The method of Claim 19, wherein determining the validity of the customer information comprises generating a validation request based on the customer information, receiving a validation response indicating the validity of the customer information, and analyzing the validation response.

24. (Previously Presented) The method of Claim 19, wherein the determining of whether the financial transaction involves a micro-payment is effected as a function of at least one of: whether the amount of the financial transaction is below a predetermined threshold, a frequency of such financial transactions, and an identity of the customer.

25. (Original) The method of Claim 19, wherein storing at least part of the transaction information comprises storing the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

26. (Original) The method of Claim 19, further comprising storing at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

27. (Original) The method of Claim 19, further comprising generating a fourth message to settle the financial transaction based on the stored part of the transaction information.

28. (Original) The method of Claim 27, wherein generating a fourth message to settle the financial transaction comprises generating the fourth message at a designated time.

29. (Original) The method of Claim 19, wherein the first message includes merchant information, and further comprising:

- determining the validity of the merchant information;
- generating the second message if the merchant information is invalid; and
- determining whether the financial transaction involves a micro-payment only if the merchant information is valid.

30. (Original) The method of Claim 29, wherein the merchant information comprises a digital certificate.

31. (Original) The method of Claim 29, further comprising storing, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

32. (Original) The method of Claim 31, further comprising generating a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

33. (Original) A set of logic encoded in media for processing financial transactions, the logic operable to perform the following operations:

- detect the reception of a first message indicating the making of a financial transaction, the first message including customer information and transaction information;

- determine the validity of the customer information;

- generate a second message indicating non-authorization of the financial transaction if the customer information is invalid;

- determine whether the financial transaction involves a micro-payment if the customer information is valid;

- if the financial transaction involves a micro-payment:

- instruct a memory to store at least part of the transaction information, and

- generate a third message indicating authorization of the financial transaction;

and

- if the financial transaction does not involve a micro-payment, generate an authorization request.

34. (Original) The logic of Claim 33, wherein the transaction information includes the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

35. (Original) The logic of Claim 34, wherein the customer account identifier represents a credit card account.

36. (Original) The logic of Claim 33, wherein:  
the customer information comprises a digital certificate; and  
the logic is further operable to determine the validity of the digital certificate to determine the validity of the customer information.

37. (Original) The logic of Claim 33, wherein the logic is further operable to generate a validation request based on the customer information, receive a validation response indicating the validity of the customer information, and analyze the validation response to determine the validity of the customer information.

38. (Previously Presented) The logic of Claim 33, wherein the logic is further operable to effect the determination of whether the financial transaction involves a micro-payment as a function of at least one of: whether the amount of the financial transaction is below a predetermined threshold, a frequency of such financial transactions, and an identity of the customer.

39. (Original) The logic of Claim 33, wherein the logic is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier to instruct a memory to store at least part of the transaction information.

40. (Original) The logic of Claim 33, wherein the logic is further operable to instruct the memory to store at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment.

41. (Original) The logic of Claim 33, wherein the logic is further operable to generate a fourth message to settle the financial transaction based on the stored part of the transaction information.

42. (Original) The logic of Claim 41, wherein the logic is further operable to generate the fourth message at a designated time.

43. (Original) The logic of Claim 33, wherein the first message includes merchant information, and the logic is further operable to:

determine the validity of the merchant information;

generate the second message if the merchant information is invalid; and

determine whether the financial transaction involves a micro-payment only if the merchant information is valid.

44. (Original) The logic of Claim 43, wherein the merchant information comprises a digital certificate.

45. (Original) The logic of Claim 43, wherein the logic is further operable to instruct the memory to store, in a buffer, at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment and is associated with the merchant information.

46. (Original) The logic of Claim 45, wherein the logic is further operable to generate a fifth message to settle all of the financial transactions based on the part of the transaction information stored for each financial transaction in the buffer.

47. (Cancelled)



48. (Previously Presented) An apparatus for processing financial transactions, comprising:

a communication interface adapted to be coupled to a communication link, the communication interface operable to receive information from and send information over the communication link, the communication interface further operable to receive a first message indicating the making of a financial transaction, the first message including customer information, merchant information, and transaction information;

a memory coupled to the communication interface, the memory operable to store information and a program;

a processor coupled to the memory, the processor, according to the program, operable to:

generate a validation request based on the customer information and the merchant information,

receive a validation response indicating the validity of the customer information and the merchant information,

generate a second message indicating non-authorization of the financial transaction if either the customer information or the merchant information is invalid,

determine, if both the customer information and the merchant information are valid, whether the financial transaction involves a micro-payment,

if the financial transaction involves a micro-payment, instruct the memory to store at least part of the transaction information in a buffer and generate a third message indicating authorization of the financial transaction,

if the financial transaction does not involve a micro-payment, generate an authorization request, receive an authorization response, and generate a fourth message indicating the authorization status of the financial transaction, and

generate a fifth message to settle the financial transaction based on the part of the transaction information stored in the buffer.

49. (Cancelled)

50. (Original) The apparatus of Claim 48, wherein:  
the customer information comprises a digital certificate;  
the merchant information comprises a digital certificate; and  
the transaction information comprises the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier.

51. (Cancelled)

52. (Original) The apparatus of Claim 48, wherein the processor is further operable to instruct the memory to store the time of initiation of the financial transaction, the amount of the financial transaction, and a customer account identifier in the buffer to instruct the memory to store at least part of the transaction information in a buffer.

53. (Original) The apparatus of Claim 48, wherein the processor is further operable to instruct the memory to store at least part of the transaction information for each of a plurality of financial transactions that involves a micro-payment in the buffer.

54. (Original) The apparatus of Claim 48, wherein the processor generates the fifth message at a designated time.

55. (Previously Presented) The apparatus of Claim 12, wherein the processor is further operable to generate a message to settle all of the financial transactions stored in the buffer as a function of at least one of: the number of financial transactions in the buffer, an aggregate value of the financial transactions in the buffer, and the occurrence of a designated time.

56. (Previously Presented) The method of Claim 26, further comprising generating of a message to settle all of the stored financial transactions as a function of at least one of: the number of stored financial transactions, an aggregate value of the stored financial transactions, and the occurrence of a designated time.

57. (Previously Presented) The logic of Claim 40, wherein the logic is further operable to generate a message to settle all of the financial transactions stored in the memory as a function of at least one of: the number of financial transactions in the memory, an aggregate value of the financial transactions in the memory, and the occurrence of a designated time.

58. (Previously Presented) The apparatus of Claim 48, wherein the processor effects the determination of whether the financial transaction involves a micro-payment as a function of at least one of: whether the amount of the financial transaction is below a predetermined threshold, a frequency of such financial transactions, and an identity of the customer.

59. (Previously Presented) The apparatus of Claim 53, wherein the processor is further operable to generate a message to settle all of the financial transactions stored in the memory as a function of at least one of: the number of financial transactions in the memory, an aggregate value of the financial transactions in the memory, and the occurrence of a designated time.